GOVERNMENT OF INDIA
ATOMIC ENERGY
LOK SABHA

UNSTARRED QUESTION NO:923
ANSWERED ON:06.03.2002
TECHNOLOGY ON SPECIALISED HEAVY WATER PROGRAMME
AMBATI BRAHMANAIAH

Will the Minister of ATOMIC ENERGY be pleased to state:

(a) whether the atomic Energy Corporation has developed an indigenous technology with regard to `specialised heavy water programme;

(b) if so,the details there of;

(c) the benefits of this indigenous technology for the country; and

(d) the other steps taken by the government to develop technology in the atomic energy sector for peaceful purpose?

Answer

THE MINISTER OF STATE IN THE MINISTRY OF SMALL SCALE INDUSTRIES,MINISTER OF STATE IN THE MINIS PERSONNEL,PUBLIC GRIEVANCES AND PENSIONS,MINISTER OF STATE IN THE MINISTRY OF PLANNING AND M OF STATE IN THE DEPARTMENTS OF ATOMIC ENERGY AND SPACE (SHRIMATI VASUNDHARA RAJE)

a & b. The Department of Atomic Energy(DAE) has developed an indigenous technology for the heavy water pragramme which is based on H2O exchange process.India is the only country to commercially exploit the monothermal NH3 process successfully for heavy water production.Besides this,an Ammonia-water exchange fornt-end plant,with necessary modification in the existing Heavy Water Plant there.

c. With the development of this technology the country is self-sufficient in heavy water and its production technology.India could also export heavy water to south Korea whis has enhanced the prestige of the nation as an exporter of such an important commodity for Nuclear power production in other parts of the world. Also the ammonia based Heavy water plants indepndent of the fertiliser plant.

d. R&D activities have been undertaken to find the use of Heavy water in pharmaceutical industries where shelf-life could be enhanced.